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EXAMINER	
TORRES VELAZQUEZ, NORCA LIZ	
ART UNIT	**PAPER NUMBER**
1771	

DATE MAILED: 07/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/896,058	ORITA ET AL.	
	Examiner	Art Unit	
	Norca L. Torres-Velazquez	1771	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 April 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3,4,6-10,12-17 and 20-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3,4,6-10,12-17 and 20-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's amendment and arguments filed April 18, 2006 have been fully considered but they are not persuasive.

a. Applicants have amended the claims to overcome the claim objections and rejections under 35 U.S.C. 112, second paragraph. Objections and rejections have been withdrawn herein accordingly.

b. Applicants have amended independent claim 1 to now use the transitional phrase "consisting essentially of" and claim 17 now uses the transitional phrase "containing". It is noted that the term "containing" is synonymous with "comprising" and does not exclude additional, unrecited elements or method steps. The transitional phrase "consisting essentially of" limits the scope of a claim to the specified materials or steps "and those that do not materially affect the basic and novel characteristic(s)" of the claims invention. *In re Herz*, 537 F.2d 549, 551-52, 190 USPQ 461, 463 (CCPA 1976). For the purposes of searching for and applying prior art under 35 U.S.C. 102 and 103, absent a clear indication in the specification or claims of what the basic and novel characteristics actually are, "consisting essentially of" will be construed as equivalent to "comprising". If an applicant contends that additional steps or materials in the prior art are excluded by the recitation of "consisting essentially of", applicant has the burden of showing that the introduction of additional steps or components would materially change the characteristics of applicant's invention. *In re De Lajarte*, 337 F.2d 870, 143 USPQ 256 (CCPA 1964) Refer to **MPEP 2111.03 [R-3]**

It is the Examiner's position that the structure of SHIODA et al. does not materially affect the basic characteristic of the present invention, which is to provide an electromagnetic wave shielding material. Applicants' assertion that the application specifically excludes the inclusion of a foam layer in the invention is rebutted about by the teachings disclosed in the MPEP 2111.03 [R-3].

c. Under the premise that the transitional phrase "containing" synonymous with "comprising", amended claim 17 is rejected herein over the prior art of SHIODA and also over ROELL in view of EBNETH.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

3. Claim 8 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 8 depends on canceled claim 2. For examining purposes, the Examiner assumes that this is a typographical error and the claim depends on claim 1.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for

> patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

5. Claims 1, 3-4, 6-10, 12-17 and 21-23 are rejected under 35 U.S.C. 102(a) as being anticipated by SHIODA et al. (WO 98/096247) published February 12, 1998, US 6,569,789 B1 is applied herein as an English equivalent.

6. **Claims 1, 3-4, 6-10, 12-17 and 21-23 are also rejected under 35 U.S.C. 102(e) as being anticipated by SHIODA et al. (US 6,569,789 B1) which has an effective filling date of Feb. 3, 1999.**

The applied reference (US 6,569,789 B1), has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

SHIODA et al. teaches a conductive material suitable as a gasket material for shielding the electromagnetic wave. The composite material is composed of a synthetic fiber-structured sheet and a porous synthetic resin sheet integrally bonded to each other and is plate with a metal. (Abstract; claims) The fiber-structured sheets include knit cloths and include an organic fiber. (Col. 3, lines 38-41) The reference teaches using a double raschel knit material. (Col. 7, line 44) The porous synthetic resin sheet used in the invention is a soft foamed sheet of three-dimensional network structure. (Col. 3, lines 55-57) The reference teaches using electroless plating to metallise the composite material. (Col. 4,lines 34-37) It is noted that the language of the present invention is open-ended (comprising) and does not preclude the inclusion of the foamed layer taught by the SHIODA et al. reference. With regards to the structure of the knit fabric, it is noted that the reference teaches the use of a double raschel knit material and as stated above, this construction is known to provide the three-dimensional structure claimed herein. With regards to the fiber-structured sheets, it is noted that while the reference teaches the use of polyester long fibers. (Refer to Examples; Cols. 6-7)

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claim 20 is rejected under 35 U.S.C. 102(a) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over SHIODA **(WO 98/096247).**

Although SHIODA does not explicitly teach the properties claimed in claim 20, it is reasonable to presume that the claimed properties of electromagnetic damping rate and pressure resistance are inherent to the product of SHIODA. Support for said presumption is found in the use of like materials (as disclosed above). The burden is upon Applicant to prove otherwise. *In re Fitzgerald* 205 USPQ 594. In addition, the presently claimed property of pressure resistance and electromagnetic damping rate would obviously have been present one the SHIODA product is provided. Note In re Best, 195 USPQ at 433, footnote 4 (CCPA 1977) as to the providing of this rejection made above under 35 USC 102.

9. Claims 1, 3-4, 7-10 and 12-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over ROELL (US 5,589,2450 in view of EBNETH (US 4,201,825) and further evidenced by EP 0748889 A2.

ROELL discloses a textile spacer material that consists of two covering layers 1 and 2, preferably of knitted fabric, which are connected by the pile thread structure 3. (Column 1, lines 48-50) It is noted that the structure taught by ROELL reads on the claimed three dimensionally knitted base material composed of an upper ground structure, a lower ground structure and connection thread interconnecting the two layers. With regards to the heat-fusing thread, it is noted that the ROELL reference teaches that the mechanical and physiological properties of the textile spacer material can be varied depending in the selection of the thread material or other classic process parameter of production. The reference gives as example the use of a temperature sensitive material. (Refer to Column 4, lines 20-38) ROELL further teaches that the textile spacer material can be coated and/or the pile threads can be surface-modified. (Column 4, lines 56-60) ROELL teaches the use of the textile spacer material as a filter material,

and indicates that special properties can also be formed by appropriately pre-treating the thread material for the pile thread structure and/or post-treating the textile spacer material. (Column 4, lines 61-65) The reference also teaches that the entire textile spacer material can be impregnated and that a sheathing of the threads can result depending on the type and quantity of the impregnation. (Column 5, lines 4-8)

It is noted that the present application fails to show the interweaving of the upper and lower ground structures and their relation with the "connection thread" of the present invention. Therefore, it is the Examiner's interpretation that at the point of interweaving of the pile thread 5 with the threads 4 of the covering layers 1, 2 of the ROELL reference as illustrated in Figure 9 the pile thread 5 does not constitute a "connection thread" but part of the weave of the covering layers, providing an interruption in the sectional direction of the matrix. It is further included herein a copy of EP 0748889 A2 that illustrates double rib knit Raschel structures to produce space knit-goods that show constructions with the argued interruptions. (Refer to figures)

With regards to claims 8 and 9, it is the Examiner position that the ROELL reference teachings in which the materials used for the pile thread structure are dependent on the intended use of the structure, are broad and would encompass the use of heat-fusing threads with melting points in the range of 100 to 190 °C.

While ROELL teaches post-treating the textile spacer material and that the entire textile spacer material, it fails to specifically teach subjecting the material to an electroless plating with at least one conductive metal.

EBNETH teaches a metallized textile material by currentless metal deposition. (Abstract) The reference teaches coating textile structures such as knitted and woven fabrics.

(Column 2, lines 15-20) The reference further teaches using the textile material metallised for the production of antistatically filter cloths and further teaches that it is also possible to use a combination of copper plated and nickel plated wall coverings for electromagnetically screening off rooms from monitoring equipment. Electrical equipment can also be readily screened off from foreign waves and interfering frequencies. (Column 3, lines 36-47) With regard to claims 10-16, it is the Examiner's position that the structures disclosed by ROELL In Figures 1-9 read on the structures presently claimed.

Since both references are directed to knitted fabrics, the purpose disclosed by EBNETH would have been recognized in the pertinent art of ROELL.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the three dimensional textile spacer fabric of ROELL and provide with a currentless metal deposition of the entire structure with the motivation of producing an electromagnetically screen as disclosed by EBNETH above.

10. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over ROELL and EBNETH as applied to claim 1 above, and further in view of ENG et al. (US 5,532,052).

The ROELL and EBNETH references do not explicitly disclose the use of a Raschel structure.

ENG et al. disclose a camouflage material having radar screening properties comprised of a warp-knitted fabric, so-called Raschel fabric.

Therefore, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the electromagnetic wave shield and provide it with a

Raschel structure with the motivation of producing a light-weight knitted fabric as disclosed by ENG et al. (Refer to Column 1, lines 16-18 and lines 32-33).

11. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over ROELL and EBNETH as applied to claim 1 above, and further in view of SHIODA et al. (WO 98/096247).

The ROELL and EBNETH references do not explicitly disclose the use of a Raschel structure.

SHIODA et al. teaches a conductive material suitable as a gasket material for shielding the electromagnetic wave. The composite material is composed of a synthetic fiber-structured sheet and a porous synthetic resin sheet integrally bonded to each other and is plate with a metal. (Abstract; claims) The fiber-structured sheets include knit cloths and include an organic fiber. (Col. 3, lines 38-41) The reference teaches using a double raschel knit material. (Col. 7, line 44) It would have been obvious at the time the invention was made to a person having ordinary skill in the art to provide a double raschel knit material as a suitable fibrous structure for the EMI since this construction is known to provide a lightweight fabric.

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Norca L. Torres-Velazquez whose telephone number is 571-272-1484. The examiner can normally be reached on Monday-Thursday 8:00-5:00 pm and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 571-272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Norca L. Torres-Velazquez
Primary Examiner
Art Unit 1771

July 9, 2006